

REMARKS

This Amendment is submitted in reply to the Office Action mailed on May 7, 2003. In the Office Action, the Examiner allowed claims 7-17, 22-26, 33-52, and 70; objected to claims 21, 56-57, and 59-60; and rejected claims 1-6, 18-20, 27-32, 53-55, 58, and 61-69. With this Response, no claims are canceled, claims 63 and 67 are amended, and no new claims are added. Upon entry of this Amendment, the above-identified application will continue to include claims 1-70.

*Claim Objections*

In the Office Action, the Examiner objected to claims 21, 56, 57, 59, and 60 as allegedly depending from a rejected base claim, but indicated the allowability of these claims if rewritten in independent form:

Claims 21, 56, 57, 59, [and] 60 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Claim 21 that the Examiner objects to depends from independent claim 18. Claims 56-57 and 59-60 that the Examiner objects to depend from independent claim 22.

Applicant appreciates the Examiner's recognition that claims 21, 56, 57, 59, and 60 each define allowable subject matter. However, Applicant currently declines the Examiner's invitation to rewrite claims 21, 56, 57, 59, and 60 in independent form, since Applicant believes independent claims 18 and 22 are each allowable, as explained more fully below. Consequently, Applicant believes claims 21, 56, 57, 59, and 60 are each allowable. Therefore, Applicant respectfully requests that the Examiner reconsider and withdraw the object to claims 21, 56, 57, 59, and 60 and that claims 21, 56, 57, 59, and 60 be allowed.

***Claim Rejections Under 35 U.S.C. §103(a) Based On The Belleson Patent***

In the Office Action, the Examiner rejected claims 1-6, 18-20, 27-32, 53-55, 58, and 61-69 under 35 U.S.C. 103(a) as allegedly “being unpatentable over” U.S. Patent No. 4,751,090 to Belleson (referred to herein as the “Belleson patent”). According to the Examiner:

Belleson discloses a composition for preparing glazed microwave popcorn. The glazing blend contains oil, sugar, water and lecithin. At column 5, lines 6-25, the composition is described as an oil-in-water emulsion. Salt is further included as a flavoring ingredient. The amount of unpopped corn to coating is shown at column 4, lines 45-55. Claims 1-6 appear to differ from Belleson in the recitation of the use of a water-in-oil emulsion or an oil-in-water-in-oil-emulsion in the coating. To utilize a water-in-oil-emulsion coating rather than an oil-in-water-emulsion would have been an obvious way to modify the extent of fat in the popcorn coating and reduce consumer exposure to cariogenic sugars. Thus, it would have been obvious to one of ordinary skill in the art to utilize a water-in-oil emulsion in the coating of Belleson to modify the flavor impact of the overall popcorn product. Applicant urges that claims 18-20 differ from Belleson in the suggestion that the flavor component in the product is added separately from the rest of the coating ingredients. This has been considered but is not persuasive. At column 5, lines 26-40, the idea of separately combining the oil and sugar phase rather than just mixing all of the ingredients together is shown. In Table 3, sugar, oil, and water are described as components of the coating. At column 8, lines 41-47, the seasonings are combined with water prior to utilizing with the other ingredients. So a fair reading of these parts of the patent illustrates that the aspect of separate addition of flavors was contemplated in Belleson. Applicant has amended claim 4 and 30 to suggest that the coating is fat continuous and contains water. But it is the examiner’s understanding that ‘fat continuous’ is an equivalent term to ‘water-in-oil emulsion’ and this aspect of the claims was addressed above.

Claim 53 appears to differ from Belleson in the suggestion of a ‘first potentially reactive additive’ but applicant defines this additive at page 43 to include sugar. The claims also differ in the recitation of a particular extent of stability of the product. Although the length of stability of the product is not especially mentioned in Belleson, the

product [is] intended for sale in the grocery store for use in the home by consumers. A substantial length of time is required in order for a product to move through all of the channels of commerce to reach the consumer. Thus one of ordinary skill in the art would anticipate that the product of Belleson would have the storage stability of the claims even though it is not specifically mentioned on the patent.

Despite the Examiner's comments, the Belleson patent does not teach, suggest, disclose, or render obvious the features of the present invention, as defined in claims 1-6, 18-20, 27-32, 53-55, 58, and 61-69.

Claims 4-6, 30-32, and 62-69

We first consider independent claims 4 and 30 that read as follows:

4. (Amended) *A composition, the composition comprising:*  
*a puffable food component; and*  
*a coating blend, the puffable food component located in*  
*coating relation with the coating blend, the coating*  
*blend comprising a sweetening agent, the coating*  
*blend effective for forming a fat continuous coating*  
*that comprises water on a puffed form of the*  
*puffable food component upon application of energy*  
*to the composition that is sufficient to puff the*  
*puffable food component.*

30. (Amended) *A method of making a coated puffed food product,*  
*the method comprising:*

*forming a coating blend, the coating blend comprising a*  
*sweetening agent;*  
*placing the coating blend and a puffable food component in*  
*coating relation with each other; and*  
*applying energy to the coating blend and to the puffable food*  
*component, the applied energy effective to transform*  
*the puffable food component into a puffed food*  
*component while transforming the edible emulsion*  
*into a fat continuous coating on the puffed food*  
*component to form the coated puffed food product,*  
*the fat continuous coating comprising water.*

(Emphasis added to both claim 4 and claim 30).

Claim 4 thus states: "the coating blend is effective for forming a fat continuous coating that comprises water on a puffed form of the puffable food component." Similarly, claim 30 states that the edible emulsion is transformed "into a fat continuous coating on the puffed food component" and characterizes the fat continuous coating as "comprising water." Thus, claim 4 and claim 30 each state that the fat continuous coating formed on the puffed food component comprises water.

The Examiner acknowledges that the Belleson patent only discloses a coating composition with an oil-in-water form:

At column 5, lines 6-25, the composition is described as an oil-in-water emulsion.

...

Claims 1-6 appear to differ from Belleson in the recitation of the use of a water-in-oil emulsion or an oil-in-water-in-oil-emulsion in the coating.

However, the Examiner attempts to discount this limitation of the Belleson patent with the following comments:

To utilize a water-in-oil-emulsion coating rather than an oil-in-water-emulsion would have been an obvious way to modify the extent of fat in the popcorn coating and reduce consumer exposure to cariogenic sugars. Thus, it would have been obvious to one of ordinary skill in the art to utilize a water-in-oil emulsion in the coating of Belleson to modify the flavor impact of the overall popcorn product.

The Examiner alleges that a fat continuous coating that comprises water is equivalent to an oil-in-water emulsion:

Applicant has amended claim 4 and 30 to suggest that the coating is fat continuous and contains water. But it is the examiner's understanding that 'fat continuous' is an equivalent term to 'water-in-oil emulsion' and this aspect of the claims was addressed above.

As for the Examiner's last comments recited above, Applicant adds the caveat that a fat continuous coating that comprises water is equivalent to an oil-in-water emulsion only if the fat continuous coating is itself an emulsion.

As noted above, claim 4 recites in part:

*the coating blend effective for forming a fat continuous coating that comprises water on a puffed form of the puffable food component upon application of energy to the composition that is sufficient to puff the puffable food component.*

and claim 30 recites in part:

*the applied energy effective to transform the puffable food component into a puffed food component while transforming the edible emulsion into a fat continuous coating on the puffed food component to form the coated puffed food product, the fat continuous coating comprising water.*

(Emphasis added to both claim 4 and claim 30).

Though the Examiner alleges it would have been obvious to “utilize a water-in-oil-emulsion coating [in the Belleson process] rather than an oil-in-water-emulsion,” the facts clearly controvert this allegation. Specifically, the Belleson patent states that “all of the water” has evaporated from the glaze blend upon formation of the glaze on the popped corn of the Belleson process. (Col. 7, lines 5-15).

The Belleson method employs an emulsifier in the oil phase of the disclosed oil-in-water emulsion. (Col. 6, lines 32-36). One purpose of employing the emulsifier in the oil phase of the disclosed oil-in-water emulsion is to control the rate at which water evaporates during heating of the combination of the unpopped corn kernels and the coating blend (oil-in-water emulsion):

If the emulsifier is eliminated from the composition, the water will boil off too quickly. This results in the temperature of the coating rising prematurely. As a result, the end product is either burned or the microwave energy must be stopped before the popping of the corn is complete.

(Col. 6, lines 62-67). The interaction of the coating blend (oil-in-water emulsion) and the corn kernels during heating of the coating blend and corn kernels is further described at col. 3, lines 3-13, of the Belleson patent. More details about the interaction of the coating blend (oil-in-water emulsion) and the corn kernels as the temperature of the coating blend exceeds 300°F and the supply

of water originally present in the coating blend (oil-in-water emulsion) approaches exhaustion are then provided:

When substantially all of the free water has evaporated from the blend, the temperature of the glazing blend begins to rise rapidly to a temperature in excess of 300°F. It is important for the blend to reach these high temperatures in order to allow it to set up into a non-tacky glaze upon the popcorn when cooled.

(Col. 3, lines 14-19).

Final details about the interaction of the coating blend (oil-in-water emulsion) and the corn kernels during as the temperature of the coating blend exceeds 300°F and the supply of water originally present in the coating blend (oil-in-water emulsion) is exhausted are then provided in the Belleson patent as follows:

The amount of emulsifying agent which is preferred should be that amount which will result in the temperature of the glazing blend lagging behind the temperature rise in the popcorn so that just as the popping of the corn is complete, all of the water from the blend has evaporated and the temperature of such blend has risen to a temperature in which the coating has set up to form the desirable glaze, but prior to reaching a temperature at which the coating will burn or carmelize.

....

If emulsification action is too high, the water in the blend takes longer to boil off; therefore the popcorn pops too quickly and the glazing blend forms a less acceptable glaze. If the amount of emulsification action is too low, the water in the blend tends to boil off more quickly, thereby resulting in premature burning or insufficiently popped popcorn.

(Col. 7, lines 5-13 and lines 19-26; emphasis added). Thus, despite the Examiner's contention to the contrary, it would not have been obvious to substitute the Examiner's water-in-oil emulsion in place of the oil-in-water emulsion of the Belleson glazing blend. Instead, as the cited portions from the Belleson patent detail, the precise form of the Belleson oil-in-water blend is required to achieve the beneficial action and exhaustion of water described in the Belleson patent.

The Examiner's alleges that substitution of the Examiner's water-in-oil-emulsion coating blend in place of the oil-in-water emulsion of the Belleson glazing blend:

would have been an obvious way to modify the extent of fat in the popcorn coating and reduce consumer exposure to cariogenic sugars.

Thus, the Examiner proposes substitution of the Examiner's water-in-oil-emulsion coating blend in place of the oil-in-water emulsion of the Belleson glazing blend for purposes of reducing the amount of fat and the amount of sugar in the completed Belleson glaze by virtue of including water that reduces the concentrations of fat and sugar employed in the glazing blend. This premise of the Examiner is in error for at least a couple of reasons.

First, the Examiner's premise directly contradicts the desired result and disclosure of the Belleson patent: "all of the water" has evaporated from the glaze blend upon formation of the glaze on the popped corn of the Belleson process. (Col. 7, lines 5-15). Thus, the Examiner's proposed substitution of a water-in-oil-emulsion coating blend (with the Examiner's proposed retention of some water in the completed glaze) in place of the oil-in-water emulsion of the Belleson glazing blend is non-obvious, since such a substitution would destroy an important and intended function of the Belleson patent: causing exhaustion of water from the glazing blend at a precise final temperature of the glazing blend for purposes of controlling the rate at which the popcorn pops and ultimately transforming the glazing blend into an acceptable, non-tacky glaze. As noted above, claims 4 and 30 of the above-identified application each require that the completed fat continuous coating comprise water, in contravention of the requirement that "all of the water" be evaporated from the glaze blend upon formation of the completed Belleson glaze.

Second, the teachings of the Belleson patent contradict the Examiner's premise that residual water should remain in the completed glaze for purposes of reducing the amount of fat and the amount of sugar in the completed Belleson glaze. The Belleson patent instead teaches that "all of the water" has evaporated from the glaze blend upon formation of the glaze on the popped corn of the Belleson process. (Col. 7, lines 5-15). There is no teaching in the Belleson patent that an acceptable, non-tacky glaze may be obtained using the Examiner's proposed substitution of a water-

in-oil-emulsion coating blend (with the Examiner's proposed retention of some water in the completed glaze) in place of the oil-in-water emulsion of the Belleson glazing blend. Furthermore, the Examiner provides no other evidence that teaches such a substitution beyond the Examiner's bare allegation. If the Examiner is relying on other evidence beyond the Belleson reference that teaches such a substitution, Applicant respectfully requests that the Examiner provide such evidence to Applicant. If the Examiner is relying on personal knowledge evidence that teaches such a substitution, Applicant respectfully requests that the Examiner provide an Affidavit that produces such evidence, in accordance with 37 C.F.R. 1.104 (b)(2). Otherwise, there is no evidence of record teaching or suggesting that an acceptable, non-tacky glaze may be obtained using the Examiner's proposed substitution of a water-in-oil-emulsion coating blend (with the Examiner's proposed retention of some water in the completed glaze) in place of the oil-in-water emulsion of the Belleson glazing blend. Absent such evidence, the Examiner's proposed substitution of a water-in-oil-emulsion coating blend (with the Examiner's proposed retention of some water in the completed glaze) in place of the oil-in-water emulsion of the Belleson glazing blend is clearly non-obvious.

Furthermore, in light of lack of evidence of record teaching or suggesting that an acceptable, non-tacky glaze may be obtained using the Examiner's proposed substitution, it is clear the Examiner's proposed substitution of a water-in-oil-emulsion coating blend in place of the oil-in-water emulsion of the Belleson glazing blend is improperly based on hindsight reconstruction. Considering the lack of evidence of record teaching or suggesting that an acceptable, non-tacky glaze may be obtained using the Examiner's proposed substitution, the only conceivable basis for the Examiner's proposed substitution of a water-in-oil-emulsion coating blend in place of the oil-in-water emulsion of the Belleson glazing blend is the use of the disclosure details of the above-identified application. However, such hindsight reconstruction that relies on the disclosure details of the above-identified application as a road map and source of the details for the obviousness allegation is improper and is an erroneous basis for alleging obviousness.

The Belleson patent, separate from or in combination with all other evidence of record relied upon by the Examiner in support of the Examiner's rejection of claims 4 and 30 under

35 U.S.C. §103(a) based on the Belleson patent, does not teach, suggest, render obvious, or disclose the invention of the above-identified application, as defined by claims 4 and 30. Therefore, claims 4 and 30 are believed allowable. Also, claims 5-6 and 62 are believed allowable, since claims 5-6 and 62 each depend from allowable claim 4. Likewise, claims 31-32 are believed allowable, since claims 31-32 each depend from allowable claim 30.

Independent claims 63 and 67 are believed allowable for reasons analogous to those provided above in regard to independent claims 4 and 30, since claims 63 and 67, like claims 4 and 30, require that the completed fat continuous coating comprise water. Also, claims 64-66 are believed allowable, since claims 64-66 each depend from allowable claim 63. Likewise, claims 68-69 are believed allowable, since claims 68-69 each depend from allowable claim 37.

Claims 1-3, 27-29, 62, and 66

We next consider independent claims 1 and 27 that read as follows:

1. *A composition, the composition comprising:  
a puffable food component; and  
an edible emulsion in coating relation with the puffable food  
component, the edible emulsion being a water-  
in-oil emulsion or an oil-in-water-in-oil  
emulsion and the edible emulsion comprising a  
sweetening agent, the edible emulsion  
transformable into a coating on a puffed form of  
the puffable food component upon application of  
energy to the composition that is sufficient to puff  
the puffable food component.*

27. *A method of making a coated puffed food product, the method  
comprising:  
forming an edible emulsion, the edible emulsion being a  
water-in-oil emulsion or an oil-in-water-in-oil  
emulsion and the edible emulsion comprising a  
sweetening agent;  
placing the edible emulsion and a puffable food component in  
coating relation with each other; and*

*applying energy to the edible emulsion and to the puffable food component, the applied energy effective to transform the puffable food component into a puffed food component while transforming the edible emulsion into a coating on the puffed food component to form the coated puffed food product.*

(Emphasis added to both claim 1 and claim 27). Thus, claims 1 and 27 each require an edible emulsion that is in the form of either (1) a water-in-oil emulsion or (2) an oil-in-water-in-oil emulsion.

The Belleson patent does not disclose either the water-in-oil emulsion or the oil-in-water-in-oil emulsion that are defined in claims 1 and 27. The Examiner does not assert the Belleson patent discloses a coating composition with an oil-in-water-in-oil emulsion form and does not allege that the alternative oil-in-water-oil emulsion form is an obvious variant of the oil-in-water emulsion form disclosed in the Belleson patent. Therefore, Applicant's comments are limited to the Examiner's allegation about it allegedly being obvious to "utilize a water-in-oil-emulsion coating [in the Belleson process] rather than an oil-in-water-emulsion."

The Examiner acknowledges that the Belleson patent only discloses a coating composition with an oil-in-water form:

At column 5, lines 6-25, the composition is described as an oil-in-water emulsion.

...

Claims 1-6 appear to differ from Belleson in the recitation of the use of a water-in-oil emulsion or an oil-in-water-in-oil-emulsion in the coating.

However, the Examiner attempts to discount this limitation of the Belleson patent with the following comments:

To utilize a water-in-oil-emulsion coating rather than an oil-in-water-emulsion would have been an obvious way to modify the extent of fat in the popcorn coating and reduce consumer exposure to cariogenic sugars. Thus, it would have been obvious to one of ordinary skill in

the art to utilize a water-in-oil emulsion in the coating of Belleson to modify the flavor impact of the overall popcorn product.

As noted above, claims 1 and 27 each require an edible emulsion that is in the form of either a water-in-oil emulsion or an oil-in-water-in-oil emulsion, though the oil-in-water-oil emulsion detail of claim 27 is not under rejection.

Though the Examiner alleges it would have been obvious to “utilize a water-in-oil-emulsion coating [in the Belleson process] rather than an oil-in-water-emulsion,” the facts clearly controvert this allegation. The Belleson patent states that “all of the water” is evaporated from the glaze blend upon formation of the glaze on the popped corn of the Belleson process. (Col. 7, lines 5-15). The Examiner is referred back to the section above concerning the Examiner’s rejection of independent claims 4 and 30 for a discussion of other details disclosed in the Belleson patent that are not directly addressed below.

The Belleson method employs an emulsifier in the oil phase of the disclosed oil-in-water emulsion to control the rate at which water evaporates during heating of the combination of the unpopped corn kernels and the coating blend (oil-in-water emulsion). (Col. 6, lines 32-36 and 62-67). The interaction of the coating blend (oil-in-water emulsion) and the corn kernels as the temperature of the coating blend exceeds 300°F and the supply of water originally present in the coating blend (oil-in-water emulsion) approaches exhaustion are then provided:

When substantially all of the free water has evaporated from the blend, the temperature of the glazing blend begins to rise rapidly to a temperature in excess of 300°F. It is important for the blend to reach these high temperatures in order to allow it to set up into a non-tacky glaze upon the popcorn when cooled.

(Col. 3, lines 14-19). Then, details about heating of the coating blend to temperatures exceeding 300°F as the supply of water originally present in the coating blend (oil-in-water emulsion) is exhausted are provided in the Belleson patent:

The amount of emulsifying agent which is preferred should be that amount which will result in the temperature of the glazing blend lagging behind the temperature rise in the popcorn so that just as the popping of the corn is complete, all of the water from the blend has

evaporated and the temperature of such blend has risen to a temperature in which the coating has set up to form the desirable glaze, but prior to reaching a temperature at which the coating will burn or caramelize.

....

If emulsification action is too high, the water in the blend takes longer to boil off; therefore the popcorn pops too quickly and the glazing blend forms a less acceptable glaze. If the amount of emulsification action is too low, the water in the blend tends to boil off more quickly, thereby resulting in premature burning or insufficiently popped popcorn.

(Col. 7, lines 5-13 and lines 19-26; emphasis added).

Despite the Examiner's contention to the contrary, it would not have been obvious to substitute the Examiner's water-in-oil emulsion in place of the oil-in-water emulsion of the Belleson glazing blend. Instead, as the cited portions from the Belleson patent detail, the precise form of the Belleson oil-in-water blend is required to achieve the beneficial action and exhaustion of water described in the Belleson patent.

The Examiner's alleges that substitution of the Examiner's water-in-oil-emulsion coating blend in place of the oil-in-water emulsion of the Belleson glazing blend:

would have been an obvious way to modify the extent of fat in the popcorn coating and reduce consumer exposure to cariogenic sugars.

Thus, the Examiner proposes the alleged substitution for purposes of including water in the completed Belleson glaze and thereby reducing the amount of fat and the amount of sugar in the completed Belleson glaze. This premise of the Examiner is in error for at least a couple of reasons.

First, the Examiner's premise directly contradicts the desired result and disclosure of the Belleson patent: "all of the water" has evaporated from the glaze blend upon formation of the glaze on the popped corn of the Belleson process. (Col. 7, lines 5-15). Thus, the Examiner's proposed substitution of a water-in-oil-emulsion coating blend (with the Examiner's proposed retention of some water in the completed glaze) in place of the oil-in-water emulsion of the Belleson glazing blend is non-obvious, since such a substitution would destroy an important and intended function of the Belleson patent: causing exhaustion of water from the glazing blend at a precise final

temperature of the glazing blend for purposes of controlling the rate at which the popcorn pops and ultimately transforming the glazing blend into an acceptable, non-tacky glaze.

Second, the teachings of the Belleson patent contradict the Examiner's premise that residual water may remain in the completed glaze for purposes of reducing the amount of fat and the amount of sugar in the completed Belleson glaze. The Belleson patent instead teaches that "all of the water" has evaporated from the glaze blend upon formation of the glaze on the popped corn of the Belleson process. (Col. 7, lines 5-15). There is no teaching in the Belleson patent that an acceptable, non-tacky glaze may be obtained using the Examiner's proposed substitution of a water-in-oil-emulsion coating blend (with the Examiner's proposed retention of some water in the completed glaze) in place of the oil-in-water emulsion of the Belleson glazing blend.

Applicant notes the Examiner provides no other evidence that teaches the Examiner's alleged substitution beyond the Examiner's bare allegation. Thus, considering the Belleson patent, there is no evidence of record teaching or suggesting that an acceptable, non-tacky glaze may be obtained using the Examiner's proposed substitution of a water-in-oil-emulsion coating blend (with the Examiner's proposed retention of some water in the completed glaze) in place of the oil-in-water emulsion of the Belleson glazing blend.

Furthermore, in light of lack of evidence of record teaching or suggesting that an acceptable, non-tacky glaze may be obtained using the Examiner's proposed substitution, the Examiner's proposed substitution of a water-in-oil-emulsion coating blend in place of the oil-in-water emulsion of the Belleson glazing blend is improperly based on hindsight reconstruction, for reasons discussed above in connection with the Examiner's rejection of claims 1 and 27. Such hindsight reconstruction that relies on the disclosure details of the above-identified application as a road map and source of the details for the obviousness allegation is improper and is an erroneous basis for alleging obviousness.

The Belleson patent, separate from or in combination with all other evidence of record relied upon by the Examiner in support of the Examiner's rejection of claims 1 and 27 under 35 U.S.C. §103(a) based on the Belleson patent, does not teach, suggest, render obvious, or disclose

the invention of the above-identified application, as defined by claims 1 and 27. Therefore, claims 1 and 27 are believed allowable. Also, claims 2-3 are believed allowable, since claims 2-3 each depend from allowable claim 1. Likewise, claims 28-29 are believed allowable, since claims 28-29 each depend from allowable claim 27.

Claims 18-20, 58, and 61

We next consider independent claim 18 that reads as follows:

18. *A composition, the composition comprising:  
a puffable food component; and  
a coating blend, the puffable food component located in coating  
relation with the coating blend, the coating blend  
comprising:  
fat or oil;  
water;  
a sweetener; and  
a flavor additive, the flavor additive isolated from the  
sweetener and from the puffable food  
component and the sweetener isolated from the  
flavor additive and from the puffable food  
component.*

Claim 18 thus defines a composition that comprises a puffable food component and a coating blend. The coating blend of claim 18 comprises water, fat or oil, a sweetener, and a flavor additive. According to claim 18, (a) the flavor additive is isolated from (i) the sweetener and from (ii) the puffable food component, while (b) the sweetener is isolated from (i) the flavor additive and from (ii) the puffable food component. The specification of the above-identified application gives salt as one example, among others, of a flavor additive. (Page 43, lines 20-23).

The Examiner provided the following argument regarding the Belleson patent in relation to claim 18:

Applicant urges that claims 18-20 differ from Belleson in the suggestion that the flavor component in the product is added separately from the rest of the coating ingredients. This has been considered but is not persuasive. At column 5, lines 26-40, the idea of separately combining

the oil and sugar phase rather than just mixing all of the ingredients together is shown. In Table 3, sugar, oil, and water are described as components of the coating. At column 8, lines 41-47, the seasonings are combined with water prior to utilizing with the other ingredients. So a fair reading of these parts of the patent illustrates that the aspect of separate addition of flavors was contemplated in Belleson.

These comments of the Examiner illustrate that the Examiner missed the point of the argument Applicant provided in the Amendment filed on February 25, 2003. In the February 25, 2003 Amendment, Applicant stated:

The Belleson patent discloses that all components of the Belleson coating formulation may be combined at the same time. (Col. 5, lines 27-29). Alternatively, when the fat and aqueous phases are formed separately before being combined, (col. 5, lines 29-32) the Belleson patent discloses that salt is merely incorporated in the aqueous phase (the sugar phase) by mixing the salt, sugars, and any other flavored solutions all together. (Col 8, line 67, through col. 9, line 2). Thus, the Belleson patent just mixes all of the aqueous phase components together without making any attempt or provision to keep the sugars, salt, or other aqueous phase flavoring component separate from each other. Furthermore, as the Examiner admits, the Belleson patent, like the above-identified application, characterizes salt as a flavoring agent. (Col. 8, lines 41-47). Thus, without even considering the Belleson interaction of the sweetener and unpopped corn or the Belleson interaction of the flavoring agent and the unpopped corn, it is clear the Belleson patent does not disclose any isolation of flavoring components (such as salt) from the sweetening agent, and vice versa, as claim 18 requires.

(Page 27, lines 9-20, of the Amendment filed on February 25, 2003).

This prior argument of Applicant was not provided for purposes of arguing that claims 18-20 merely “differ from Belleson in the suggestion that the flavor component in the product is added separately from the rest of the coating ingredients.” Instead, this prior argument of Applicant was provided for purposes of demonstrating the Belleson patent does not disclose both (a) isolation of the flavor additive from (i) the sweetener and from (ii) the puffable food component, along with (b) isolation of the sweetener from (i) the flavor additive and from (ii) the puffable food component, which claim 18 requires.

For purposes of explaining the special efforts taken in the present invention to isolate particular components from one another, the Examiner is referred to the specification of the above-identified application:

As noted, the coating blend 10 may take the form of either the water-in-oil emulsion or the form of the oil-in-water-in-oil emulsion. The coating blend 10 includes edible fat(s), emulsifying agent(s), and water. In a preferred form, the coating blend 10 also includes the sweetening agent 134. The coating blend 10 may optionally include a variety of other miscellaneous components, such as the edible flavor component(s) 118, the edible color component(s) 120, and preservative(s), such as antioxidant(s). A variety of different components that may be included in the coating blend 10, such as any edible flavor component 118, any edible color component 120, and any component(s) of the sweetening agent 134, may potentially be reactive and therefore may be considered to be a potentially reactive component. Some non-exhaustive examples of potentially reactive components are at least some sugar component(s) of the sweetening agent 134 and common table salt (NaCl), one example of the optional flavor component 118.

The coating blend 10 includes a fat continuous phase, as best depicted at 212 in Figure 6, and a discontinuous, dispersed aqueous phase 214. Water-soluble forms of potentially reactive component(s) that are included in the coating blend 10 are present in droplets 216 of the dispersed aqueous phase 214 that are uniformly dispersed throughout the fat continuous phase 212. Oil-soluble forms of potentially reactive component(s) that are included in the coating blend 10 may be uniformly dispersed throughout the fat continuous phase 212 as part of the fat continuous phase 212. Alternatively, or in addition, oil-soluble forms of potentially reactive component(s) that are included in the coating blend 10 may be present as droplets 218 that are uniformly dispersed in droplets 220 of the dispersed aqueous phase 214, which yields the oil-in-water-in-oil emulsion form of the coating blend 10. These droplets 218 will typically include an aqueous encapsulating layer 222 that fully envelopes and secures oil-soluble forms of potentially reactive component(s) within the droplets 220. Any droplets 218 that are included in the coating blend 10 are preferably distributed uniformly within different droplets 220 of the dispersed aqueous phase 214.

Water-soluble forms of potentially reactive component(s) that are included in the coating blend 10 may permissibly be present in droplets 220 of the dispersed aqueous phase 214. Likewise, oil-soluble forms of potentially reactive component(s) that are included in the coating blend 10 may permissibly be present in droplets 216 of the dispersed aqueous phase 214. Preferably, the presence of water-soluble forms of potentially reactive component(s) is minimized in, and more preferably essentially or fully eliminated from, the droplets 220 to minimize the opportunity for interaction of different potentially reactive components. Likewise, the presence of oil-soluble forms of potentially reactive component(s) is preferably minimized in, and more preferably essentially or fully eliminated from, the droplets 216 to minimize the opportunity for interaction of different potentially reactive components.

Thus, droplets 216 of the dispersed aqueous phase 214 contain water-soluble forms of potentially reactive component(s), while droplets 220 of the dispersed aqueous phase 214 contain droplets 218 of oil-soluble forms of potentially reactive component(s). Besides the droplets 216, 220 of the dispersed aqueous phase 214, droplets 224 of the dispersed aqueous phase 214 may be dispersed in the fat continuous phase 212. The droplets 224, unlike the droplets 216, 220, do not contain any potentially reactive component(s). The droplets 224 may, however, contain oil-soluble or water-soluble components (such as oil-soluble or water-soluble forms of the optional flavor component(s) 118, the color component(s) 120, and sugar components of the sweetening agent 134) that do not constitute potentially reactive component(s). Also, the droplets 224 may possibly include only water.

**Segregation** of water-soluble form(s) of potentially reactive component(s) in droplets 216 of the dispersed aqueous phase 214 **isolates** these water-soluble form(s) of the potentially reactive component(s) that are present in the droplets 216 from any oil-soluble form(s) of potentially reactive component(s) that are dispersed in the fat continuous phase 212. Likewise, **segregation** of oil-soluble form(s) of potentially reactive component(s) by uniformly dispersing these oil-soluble form(s) of potentially reactive component(s) in the fat continuous phase 212 as part of the fat continuous phase 212 **isolates** these oil-soluble form(s) of potentially reactive component(s) from water-soluble form(s) of potentially reactive component(s) that are present in droplets 216 of the dispersed aqueous phase 214. Furthermore, **segregation** of oil-soluble form(s) of potentially reactive component(s) in the droplets

218 within the droplets 220 **prevents** these oil-soluble form(s) of potentially reactive component(s) of droplets 218 **from interacting with potentially reactive component(s)** (such as potentially reactive components in the droplets 216 or potentially reactive components that are in the fat continuous phase 212) that are located outside of the droplets 218. An additional benefit of the present invention is that the **segregative structures** described above for both water-soluble forms and oil-soluble forms of potentially reactive component(s) **effectively isolate** both water-soluble and oil-soluble forms of potentially reactive component(s) from interaction with the puffable food pellets 12 (not shown in Figure 6), such as the raw corn kernels 26, prior to initiating puffing of the puffable food pellets 12.

Ultimately, this ability to **isolate** different potentially reactive components from each other within the coating blend 10 and from the puffable food pellets 12 allows the food intermediate 14 (not shown in Figure 6), as well as, the coating blend 10 to exhibit extraordinary stability (i.e.: chemical and biochemical stability) with no, or essentially no, degradation of any components of the food intermediate 14 during longer storage periods on the order of about six (6) months, or more, at relatively warm storage temperatures of about 70°F, or more. Thus, the food intermediate 14, as well as, the coating blend 10 exhibit extraordinary shelf stability characteristics, without refrigeration, that result in no, or essentially no, chemical or biochemical degradation, and thus no, or essentially no, flavor degradation, color degradation, or nutritional degradation during a first period, even when this first period is on the order of about one month, six months, one year or longer, at relatively warm storage temperatures of about 70°F, about 100°F, about 120°F, or more.

(Page 26, line 13, thru page 29, line 16, and Figure 6 of the above-identified application; emphasis added).

As the Examiner observes, no special precautions are taken in the Belleson patent to isolate components that are characterized as potentially reactive components (salt, some sugar components, some flavoring components in addition to salt) in the present application from each other. Instead, the Belleson patent allows all water-phase components and all oil-phase components of the glazing blend to simply be combined in one single step. (Col. 8, lines 48-51). Alternatively, the Belleson water phase may be prepared separately from the Belleson oil phase, with combination of the Belleson oil and water phases thereafter.

However, as noted in the above-identified application, salt is a potentially reactive component. (Page 26, lines 23-25). To address this potential reactivity of salt, the above-identified application describes dispersal of droplets of a water phase solution of the salt in the oil phase, prior to dispersal of the portion of the water phase comprising the sugar components (those sugar components that are not potential reactive) in the oil phase. (Page 43, line 28, through page 44, line 5). Thus, water phase droplets containing a first particular potentially reactive water-soluble component (such as salt) may be isolated (separately dispersed in the oil phase) from different water phase droplets containing a second particular potentially reactive water-soluble component (such as a potentially reactive water soluble sugar component) and may also be isolated (separately dispersed in the oil phase) from different water phase droplets containing water-soluble component that are not potentially reactive (such as some water soluble sugar component). Furthermore, since water phase droplets containing the first particular potentially reactive water-soluble component (such as salt) are dispersed in the oil phase (thus the water-in-oil emulsion designation), these water phase droplets containing the first particular potentially reactive water-soluble component (such as salt) are also isolated from the puffable food component. Likewise, since water phase droplets containing the second particular potentially reactive water-soluble component (such as a potentially reactive water soluble sugar component) are dispersed in the oil phase (thus the water-in-oil emulsion designation), these water phase droplets containing the second particular potentially reactive water-soluble component (such as a potentially reactive water soluble sugar component) are also isolated from the puffable food component. The details of claim 18 presently at issue are broad enough to cover such a system of isolating two different potentially reactive water-soluble components (such as a salt and a particular sweetener) from each and from a puffable food component.

On the other hand, no special precautions are taken in the Belleson patent to isolate components that are characterized as potentially reactive components (salt, some sugar components, some flavoring components in addition to salt) in the present application from each other. Instead, the Belleson patent allows all water-phase components and all oil-phase components of the glazing blend to simply be combined in one single step. (Col. 8, lines 48-51). Alternatively, the Belleson water phase may be prepared separately from the Belleson oil phase, with combination of the Belleson oil and water phases

thereafter. (Col. 9, lines 9-11). However, in the Belleson process, when the aqueous (sugar) phase is prepared separately from the oil phase, the salt and sugar(s) are all added together during preparation of the sugar phase. (Col. 8, line 67, through col. 9, line 8). No attempt is made in the Belleson process to isolate any potentially reactive sugars from the salt, such as by separately an aqueous solution of the salt in the oil phase and an aqueous solution of potentially reactive sugar in the oil phase. Furthermore, because of the water-continuous nature (oil-in-water emulsion) of the Belleson glazing blend, contact between all potentially reactive sugars in the continuous water phase with the corn kernels is unimpeded and contact between the salt in the continuous water phase with the corn kernels is unimpeded, unlike the isolation required by claim 18.

Beyond not disclosing isolation of any potentially reactive sugars from the salt, isolation of potentially reactive sugars from corn kernels, and isolation of the salt from the corn kernels, the Belleson patent does not teach, suggest, or provide motivation for any such isolation. Furthermore, the Examiner has not alleged any grounds for obviousness of modifying the system of the Belleson patent to isolate any potentially reactive sugars from the salt. While the Examiner did allege it would be obvious to substitute a water-in-oil emulsion for the oil-in-water emulsion disclosed in the Belleson patent (which would have the effect of isolating potentially reactive sugars in the water phase from the corn kernels and isolating salt in the water phase from the corn kernels), this alleged substitution of a water-in-oil emulsion for the oil-in-water emulsion disclosed in the Belleson patent has been shown to be non-obvious above when addressing the Examiner's rejection of claims 4 and 30 and when addressing the Examiner's rejection of claims 1 and 27.

The Belleson patent, separate from or in combination with all other evidence of record relied upon by the Examiner in support of the Examiner's rejection of claim 18 under 35 U.S.C. §103(a) based on the Belleson patent, does not teach, suggest, render obvious, or disclose the invention of the above-identified application, as defined by claim 18. Therefore, independent claim 18 is believed allowable. Also, claims 19-20 are believed allowable, since claims 19-20 each depend from allowable claim 18. Furthermore, claims 58 and 61 are believed allowable for reasons analogous to those provided above in relation to independent claim 18.

Claims 53, 54-55, 58, and 61

We next consider independent claim 53 that reads as follows:

*53. (Original) A method of making a coated puffed food product, the method comprising:*

*forming a coating blend, the coating blend comprising:  
fat;  
water; and  
a first potentially reactive additive;  
placing the coating blend and a puffable food component in  
coating relation with each other; and  
applying energy to the coating blend and to the puffable food  
component, the applied energy effective to transform the  
puffable food component into a puffed food component  
while transforming the coating blend into a coating on  
the puffed food component to form the coated puffed  
food product, the coating blend being stable against  
degradation during storage for a period of at least about  
six months at a temperature of at least about 70 °F.*

Claim 53 thus defines a method of making a coated puffed food product. According to the method, which comprises forming a coating blend that comprises fat, water, and a first potentially reactive additive and placing the coating blend and a puffable food component in coating relation with each other, the coating blend is “stable against degradation during storage for a period of at least about six months at a temperature of at least about 70°F.”

With regard to claim 53, the Examiner alleges:

Claim 53 appears to differ from Belleson in the suggestion of a ‘first potentially reactive additive’ but applicant defines this additive at page 43 to include sugar. The claims also differ in the recitation of a particular extent of stability of the product. Although the length of stability of the product is not especially mentioned in Belleson, the product [is] intended for sale in the grocery store for use in the home by consumers. A substantial length of time is required in order for a product to move through all of the channels of commerce to reach the consumer. Thus one of ordinary skill in the art would anticipate that the product of Belleson would have the storage stability of the claims even though it is not specifically mentioned on the patent.

As an initial comment, Applicant points out that the Belleson process does not take the precautions described in the above-identified application for protecting potentially reactive additives from deleterious interaction with each other and with puffable food components. Instead, as detailed above with regard to claims 18, 58, and 61, no special precautions are taken in the Belleson patent to isolate components that are characterized as potentially reactive components (salt, some sugar components, some flavoring components in addition to salt) in the present application from each other. Instead, the Belleson patent allows all water-phase components and all oil-phase components of the glazing blend to simply be combined in one single step. (Col. 8, lines 48-51). Alternatively, the Belleson water phase may be prepared separately from the Belleson oil phase, with combination of the Belleson oil and water phases thereafter. (Col. 9, lines 9-11). However, in the Belleson process, when the aqueous (sugar) phase is prepared separately from the oil phase, the salt and sugar(s) are all added together during preparation of the sugar phase. (Col. 8, line 67, through col. 9, line 8). No attempt is made in the Belleson process to isolate any potentially reactive sugars from the salt, such as by separately an aqueous solution of the salt in the oil phase and an aqueous solution of potentially reactive sugar in the oil phase. Furthermore, because of the water-continuous nature (oil-in-water emulsion) of the Belleson glazing blend, contact between all potentially reactive sugars in the continuous water phase with the corn kernels is unimpeded and contact between the salt in the continuous water phase with the corn kernels is unimpeded.

These lack of precautions notwithstanding and though admitting “the length of stability of the product is not especially mentioned in Belleson,” the Examiner nevertheless alleges that “one of ordinary skill in the art would anticipate that the product of Belleson would have the storage stability of the claims even though it is not specifically mentioned on the patent.” This allegation is based on the Examiner’s contention that the Belleson product “intended for sale in the grocery store for use in the home by consumers. A substantial length of time is required in order for a product to move through all of the channels of commerce to reach the consumer.”

Applicant respectfully disagrees with the Examiner’s allegation. The lack of disclosure of stability cannot automatically be transformed into a teaching of stability, absent some type of evidence in support of such a teaching. Here, there is no evidence whatsoever in support of the Examiner’s

contentions regarding the expectations of “one of ordinary skill in the art . . . that the product of Belleson would have the storage stability of the claims even though it is not specifically mentioned on the patent.” The Examiner’s allegations are purely speculative. Though a patent was granted, we do not even know if a product of the type described in the Belleson patent was ever even commercially produced or provided to consumers. Furthermore, even if a product of the type described in the Belleson patent was commercially produced or provided to consumers, it is entirely within the realm of possibilities that the product was later withdrawn from the marketplace after consumers encountered stability issues. Different commercial enterprises have different thresholds and reasons for deciding when introduction of a product to the marketplace is warranted. The mere fact that a product may have been introduced to the marketplace based on the process disclosed in the Belleson patent does not mean with any degree of certainty that the product possibly introduced has the storage stability characteristics defined in claim 53.

Here, since there is no objective evidence supporting the Examiner’s obviousness allegation, the obviousness rejection is based on pure speculation, is therefor in error, and should consequently be withdrawn. In re Rijckaert, 28 USPQ2d 1955, 1956 (Fed. Cir. 1993) (the PTO’s assertion that the claimed relationship “is ‘probably satisfied’ by the prior art is speculative and therefore does not establish a prima facie case of unpatentability.”; “In rejecting claims under 35 U.S.C. 103, the examiner bears the initial burden of presenting a prima facie case of obviousness. . . Only if that burden is met, does the burden of coming forward with evidence or argument shift to the applicant. . . ‘A prima facie case of obviousness is established when the teachings from the prior art itself would appear to have suggested the claimed subject matter to a person of ordinary skill in the art. . . . If the examiner fails to establish a prima facie case, the rejection is improper and will be overturned.””).

The Belleson patent, separate from or in combination with all other evidence of record relied upon by the Examiner in support of the Examiner’s rejection of claim 53 under 35 U.S.C. §103(a) based on the Belleson patent, does not teach, suggest, render obvious, or disclose the invention of the above-identified application, as defined by claim 53. Therefore, independent claim 53 is believed allowable. Also, claims 54-55, 58, and 61 are believed allowable, since claims 54-55, 58, and 61 each depend from allowable claim 53.

Claims 1-6, 18-20, 27-32, 53-55, 58, and 61-69 are believed allowable for at least the reasons provided above. Consequently, Applicant respectfully requests that the Examiner reconsider and withdraw the rejections of claims 1-6, 18-20, 27-32, 53-55, 58, and 61-69 under 35 U.S.C. 103(a) based on the Belleson patent and that claims 1-6, 18-20, 27-32, 53-55, 58, and 61-69 be allowed.

CONCLUSION

Applicant believes claims 1-6, 18-21, 27-32, and 53-69 are allowable. Consequently, Applicant respectfully requests that the Examiner reconsider and allow claims 1-6, 18-21, 27-32, and 53-69. The Examiner is invited to contact Applicant's below-named attorney as appropriate to resolve any remaining issues standing as an impediment to allowance of the above-identified application.

Respectfully submitted,  
KINNEY & LANGE, P.A.

Date: August 7, 2003

By Philip F. Fox  
Philip F. Fox, Reg. No. 38,142  
THE KINNEY & LANGE BUILDING  
312 South Third Street  
Minneapolis, MN 55415-1002  
Telephone: (612) 339-1863  
Fax: (612) 339-6580

PFF:alg